

REMARKS/ARGUMENTS

The Advisory Action mailed August 4, 2004 has been carefully considered.

Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 1-85 are now pending.

Claims 1, 6, 12, 16-17, 21, 26, 28-29, 33, 38 and 40-44 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. The amendment also contains minor changes of a clerical nature. Support for these changes may be found in the specification, page 13, lines 4-8, page 15, lines 5-10, for example. The text of claims 2-5, 7-11, 13-15, 18-20, 22-25, 27, 30-32, 34-37 and 39 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 45-85 have been added, which also particularly point out and distinctly claim subject matter regarded as the invention. Support for these claims may be found in the specification, page 13, the second paragraph, page 15, the first paragraph, FIGS. 7 - 10, and related descriptions on pages 19-27.

No “new matter” has been added by the amendment.

The 35 U.S.C. §102 Rejection

Claims 1-5, 17-25, 29-32 and 41 stand rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Hacherl (U.S. Pat. No. 6,324,571 B1), among which claims 1, 17, 21, 29, and 41 are independent claims. This rejection is respectfully traversed.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 869 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). *See also*, M.P.E.P. §2131.

Claim 1 defines a high reliability computer system. The claimed computer system comprises (a) a first processing engine (PE), (b) a first memory accessible by said first PE, containing initialization information for said first PE, (c) a second PE, (d) a second memory accessible by said second PE, containing initialization information for said second PE, (e) a third memory accessible by said second PE, said third memory having a location for storing an enable password for said first PE, the enable password protecting access to a privileged mode and execution of privileged mode commands, (f) a fourth memory accessible by said second PE, (g) circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, and (h) a password passer writing said enable password of said first PE to the fourth memory accessible by said second PE, as recited in claim 1 as amended.

In the Advisory Action, the Examiner contends as follows:

Hacherl discloses that a domain controller performs the replication operation at scheduled intervals (col. 7, lines 38-40, col. 8, lines 48-52 and col. 10, lines 1-8), which is an automatic operation. Hacherl also discloses that an exemplary embodiment of the invention may be implemented in the Microsoft Windows NT operation system that is based on primary domain controller (PDC) and backup domain controller (BDC) (col. 8, lines 30-35 and col. 9, lines 15-25). The BDC of Windows NT automatically takes over

the domain as a new PDC whenever the PDC becomes unavailable (i.e., unoperational) for any reason.

However, Applicant does not claim a “scheduled” automatic replication of data from a primary domain controller to a backup domain controller. As clearly recited in claim 1, the claimed invention automatically switches control of said system from said first PE to said second PE upon detection of a failure of said first PE (emphasis added).

On the other hand, the alleged “scheduled replication” is defined in Hacherl as follows:

Generally, a domain controller replicates data at scheduled intervals. As used herein, "scheduled replication" refers to the process whereby at predetermined scheduled intervals a domain controller requests replication for a naming context from each domain controller in its predefined set of domain controllers from which it is configured to replicate” (Column 7, lines 38-43 of Hacherl).

Thus, the alleged automatic replication is replication of data, not switching of the control. Furthermore, the replication requires both of the requesting and requested controllers work properly, since they need to communicate each other to perform such a replication. Accordingly, the above-cited portion of Hacherl does not disclose the circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, as recited in claim 1.

In column 8, lines 48-52 of Hacherl, which the Examiner cited in the Advisory Action, reads as follows:

As described above in the exemplary operating environment section, replication may be performed at scheduled time intervals or in some instances on an urgent or immediate basis.

However, this “urgent or immediate basis” is not related to any failure of domain controller, as defined in column 7, lines 44-56 of Hacherl as follows:

For urgent replication transactions, a request is made to a single domain controller in response to a notification from that domain controller indicating that there has been an update to an object which should be replicated outside of the set replication schedule. Thus, as used herein “urgent replication” refers to a process wherein a message indicating an object has been updated is first received from another domain controller. Thereafter, a replication request is sent to that domain controller requesting the appropriate updated data. After a packet is successfully applied, the destination server will update its local copy of the agreement with the source's current update number, so that it will not continuously fetch the same changes (emphasis added).

Thus, “the urgent or immediate replication” occurs when the data is updated, and also requires a request and response between the controllers which must be properly working. Accordingly, either “scheduled” or “urgent or immediate” replication cannot be performed if one of the controllers has failed. Furthermore, mere “replication of data” does not mean switching of the control, since any backup controller may have replicated or duplicate data without controlling the system. Thus, this portion of Hacherl also fails to disclose the circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, as recited in claim 1.

Hacherl's column 10, lines 1-8 describes a role owner transfer. However, in Hacherl, “the requesting server issues and the current role owner receives a requests that a particular FSMO role be transferred from the current role owner to the requesting machine” (column 10, line 1-4 thereof). Thus, this role owner transfer also requires that both of the current owner (the alleged first EP) and the requesting machine (the alleged

second PE) be working properly, teaching away from transferring the role owner upon detection of a failure of the current role owner (the alleged first PE), as recited in claim 1.

In addition, the Examiner's statement that the "BDC of Windows NT automatically takes over the domain as a new PDC whenever the PDC becomes unavailable (i.e., unoperational) for any reason" lacks factual and evidential basis in Hacherl. Hacherl only suggests a system administrator's manual intervention (column 11, lines 16 and after) if a role owner machine is not available for transfer for some reasons such as the machine is busy or the machine has simply crashed (column 10, lines 10-13 of Hacherl). Hacherl's description regarding the role owner transfer (column 10 lines 14 through column 11, line 15) is only applicable to the situation where the current role owner is available for transfer, i.e., there is no failure of the current role owner (the alleged first PE), as clearly state in column 10, lines 14-15 of Hacherl. Thus, Hacherl fails to disclose the claimed circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE (emphasis added). "The identical invention must be shown in a cited reference as complete detail as is contained in the claim" to be anticipated by the reference. This point has also been fully discussed in Applicant's previous response to the Final Office Action.

Accordingly, Hacherl fails to disclose the claimed circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, as recited in claim 1.

The Examiner continues, in the Advisory Action, as follows:

Hacherl further discloses that the role owner attribute and the RID (corresponding to the recited enable password) of a Master stored in databases are replicated to other server (col. 9, lines 8-26 and col. 10, lines 45-60). Implementing Hacherl system of replication at scheduled time in a Windows NT environment meets the limitations of claims 1-5, 17-25, 29-32 and 41.

In this allegation, the Examiner equates Hacherl's relative identifier (RID) with the claimed enable password which is now clearly defined as "protecting access to a privileged mode and execution of privileged mode commands," as recited in claim 1 as amended. Hacherl's RIDs are unique identifiers each of which uniquely identifies a corresponding domain controller such that all the other domain controllers in the network system know which domain controller is the current role owner (column 12, lines 21-22 thereof). Hacherl's disclosure and teaching are limited to the identifying function of the RID in any situations, i.e., "normal" role owner transfer, manual "role seizure," or restoring role owner (column 10, lines 40-61, column 11, lines 44-50, and column 12, lines 36-65, respectively). A mere unique identifier which is to be known to all other domain controllers to identify a specific role owner controller cannot be used as an enable password to protect the system from unauthorized access to a privileged mode.

Accordingly, Hacherl also fails to disclose or teach the claimed password passer which writes the enable password of said first PE to the fourth memory accessible by said second PE, where the enable password protects access to a privileged mode and execution of privileged mode commands, as recited in claim 1.

Claims 17, 21, 29, and 41 also include, among others, substantially the same distinctive feature as claim 1. Accordingly, it is respectfully requested that the rejection of claims based on Hacherl be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

The First 35 U.S.C. §103 Rejection

Claims 6-16, 26-28, 33-39 and 42 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Hacherl (U.S. Pat. No. 6,324,571) in view of Kung (U.S. Pat. No. 5,241,594) over the admitted prior art, among which claims 6, 12, 16, 26, 28, 33, 38 and 42 are independent claims. This rejection is respectfully traversed.

According to M.P.E.P. §2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

Furthermore, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Claim 6 defines a high reliability computer system. The claimed system comprises (a) a first PE, (b) a first memory accessible by said first PE, containing

initialization information for said first PE, (c) a second PE, (d) a second memory accessible by said second PE, containing initialization information for said second PE, (e) circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, (f) a password memory accessible by said first and second PEs, having a location for storing an enable password for the system, the enable password protecting access to a privileged mode and execution of privileged mode commands, and (g) a password keeper for maintaining said enable password in said password memory for said first and second PEs, as recited in claim 6 as amended.

In the Advisory Action, the Examiner maintains the first §103 rejection, alleging as follows:

Kung teaches the use of a server with an interface for having a database of passwords (corresponding to the recited password keeper) accessible by the clients (col. 2, lines 15-21 and col. 4, lines 22-37). Combination of Hacherl and Kung teachings meet the limitations of claims 6-16, 26-28, 33-39 and 42.

As discussed above in response to the §102 rejection, Hacherl does not teach or suggest the claimed circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE. Similarly, Hacherl also fails to teach or suggest a password memory accessible by said first and second PEs, having a location for storing an enable password for the system, the enable password protecting access to a privileged mode and execution of privileged mode commands, and a password keeper for maintaining said enable password in said password memory for said first and second PEs, as recited in claim 6.

The portions of Kung cited by the Examiner only describe that a user ID and user passwords for each computer may be stored in file in a certain location or in a database. Kung does not teach or suggest the claimed circuitry, the password memory having a location for storing the enable password, or password keeper maintaining the enable password, where the enable password protects access to a privileged mode and execution of privileged mode commands, as recited in claim 6.

Therefore, Hacherl, whether considered alone or combined with or modified by Kung, does not teach circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, a password memory accessible by said first and second PEs, having a location for storing an enable password for the system, the enable password protecting access to a privileged mode and execution of privileged mode commands, and a password keeper for maintaining said enable password in said password memory for said first and second PEs, as recited in claim 6, as recited in claim 6.

Claims 12, 16, 26, 28, 33, 38 and 42 also include, among others, substantially the same distinctive feature as claim 6. Thus, these claims are also allowable at least for the same reason. Accordingly, it is respectfully requested that the rejection of claims based on Hacherl and Kung be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

The Second 35 U.S.C. §103 Rejection

Claims 40 and 43-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hacherl in view of Alonso et al (U.S. Pat. No. 6,434,700). This rejection is respectfully traversed.

Claim 40 defines a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing password protection for a high reliability computer system. The system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, as recited in claim 40. The claimed method comprises (a) sending an enable password for the high reliability computer system for storage in a database of an authentication, authorization and accounting (AAA) server coupled to the high reliability computer system via an information bus, the enable password protecting access to a privileged mode and execution of privileged mode commands on the high reliability computer system, (b) communicating user authentication requests and responses with the AAA server over the information bus via a first interface and obtaining the enable password from the AAA server for the first PE, and (c) communicating user authentication requests and responses with the AAA server over the information bus via a second interface and obtaining the enable password from the AAA server for the second PE.

In the Advisory Action, the Examiner maintains the second §103 rejection, alleging as follows:

Alonso teaches the implementation of an AAA server for authenticating and authorizing users in a centralized fashion (col. 5, line 60, col. 6, line 5). Deployment of the AAA server of Alonso in the invention of Hacherl would meet the limitations of claims 40, 43 and 44.

As discussed above in response to the §102 rejection, Hacherl does not teach or suggest the circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, which is also recited in claim 40. Similarly, Hacherl also fails to teach or suggest any database (of AAA server, password server, or whatever) to which an enable password is sent, where the enable password protects access to a privileged mode and execution of privileged mode commands on the high reliability computer system, and obtaining the enable password from the database for the first PE and/or the second PE, as recited in claim 40.

In the Advisory Action, the Examiner only cites Alonso for allegedly teaching an AAA server which authenticates the users attempting to access resources on the network. However, similarly to Kung, Alonso also fails to teach or suggest the above-mentioned claimed features missing from Hacherl. Therefore, Hacherl, whether considered alone or combined with or modified by Alonso, does not teach circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, sending an enable password for storage in a database of an AAA server, where the enable password protects access to a privileged mode and execution of

privileged mode commands on the high reliability computer system, and communicating user authentication requests and responses with the AAA server over the information bus via a first/second interface and obtaining the enable password from the AAA server for the first/second PE, as recited in claim 40.

Claims 43 and 44 also include, among others, substantially the same distinctive feature as claim 40. Thus, these claims are also allowable at least for the same reason. Accordingly, it is respectfully requested that the rejection of the claims based on Hacherl and Alonso be withdrawn. In view of the foregoing, it is respectfully asserted that the claim is now in condition for allowance.

Dependent Claims

Claims 2-5 depend from claim 1, claims 7-11 depend from claim 6, claims 13-15 depend from claim 12, claims 18-20 depend from claim 17, claims 22-25 depend from claim 21, claim 27 depends from claim 26, claims 30-32 depend from claim 29, claims 34-37 depend from claim 33, and claim 39 depends from claim 38. The dependant claims include the limitations of the corresponding base claims. The argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable at least for the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Response and issuance of a timely Notice of Allowance are earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-1698.

Respectfully submitted,
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Limited Recognition under 37 CFR §10.9(b)

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